

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION FOR UNITED STATES LETTERS PATENT

TITLE OF THE INVENTION

UNIVERSAL PAN LID ABSORBING AND FILTERING STEAM AND SMELL

PRIORITY

This Application claims the priority of Italian Utility Model Application Serial Number MI 2002 U 000406, filed August 30, 2002.

BACKGROUND OF THE INVENTION

[0001] The present invention relates to a universal pan lid absorbing and filtering steam and smell, having great utility and easiness of use, solving in an optimal way the hoary and felt problem

to avoid kitchen smell spread.

[0002] The present inventor already designed a device to be applied on pans and pots to solve this problem, comprising a telescopic cup fitting on pans and pots of any size, but such a device still being perfectly suitable for the intended purpose, comprised a number of components and was relatively expensive and cumbersome.

[0003] Reversing the idea the inventor put as a basis of the prior device, the present invention instead of providing a device replacing the traditional lid, modifies said lid transforming it into a true sucking and filtering hood.

[0004] In other words, a central body acting as a sucking filter is applied to the lid, said body in its simplest form acts as lid-holding-knob, while the lid flat keeps its plain lid-closing-shape and is possibly provided with concentric steps in order to snap fit on the rim of pots and pans of different diameters. In its full version the central body may house a battery operated fan further improving the lid performance.

SUMMARY OF THE INVENTION

[0005] The lid flat is made of fire-resistant tempered glass allowing to check every stage of food cooking and moreover allowing introduction of a ladle and addition of ingredients when cooking through a proper opening with a tight gasket comprising a membrane of food grade rubber so that it is not necessary to raise the lid during the cooking operation. However the lid flat could also be made of food grade metals such as aluminum, copper and steel, thus losing only the visibility inside the pan but without departing from the scope of the invention.

[0006] The filter made of activated charcoal preferably of coconut, has a high absorbing

power removing food smell whatever would be their cooking method, without altering their taste.

The filtering cloth has granules of activated charcoal embedded therein and changes color when it is saturated, thus advising the user that replacement is required so as to keep efficient the filtering power. Indeed replacement of the filter is a very simple operation.

[0007] In its simplest version, the filter is directly inserted in the gripping-knob that in this case has a burn proof ergonomic shape avoiding contact of the users' hand with the outgoing steam and is made of shock resistant and anti-slip insulating rubber obviously of food grade. The knob may be fixed to the lid flat either in a removable or irremovable way. More particularly to apply the knob to lids prepared by the pan manufacturer, the knob will be provided with an annular ring sucker since its central portion is provided with the steam discharge opening.

[0008] Another advantage of the tempered glass flat is to refract downwards the part of steam hitting said flat, so that this hot steam falling back on the cooking food, accelerates the cooking with time and energy saving, while the rest of steam generated in the pan passes immediately through the central filter to be purified.

[0009] Not only use of the lid according to the present invention is practical and easy, but also its washing and cleaning in view of the possibility of releasing the glass flat from the body and cleaning it in a dish washing machine as a normal table dish. In its full version, where the central body housing the filter and the fan is of necessity of greater size, it is provided with two lateral wings ending with a handle made of burn proof material such as wood.

[0010] These and other objects, features and advantages of the universal lid according to the present invention will be apparent and clear from the following detailed description made with reference to the figures of the accompanying sheets of illustrative drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

- [0011] Figure 1 is a perspective side view of the lid in its universal stepped version;
- [0012] Figure 2 is an isometric exploded view of the lid with all its components and a flat of non-universal type;
- [0013] Figure 3 is an isometric exploded view of the knob with the sucker fitting on any pot and pan of different size;
- [0014] Figure 4 is an isometric top and bottom view of the knob with relevant sucker;
- [0015] Figure 5 is a perspective view of the lid with assembled knob;
- [0016] Figure 6 is a side view of the lid of Figure 5; and
- [0017] Figure 7 is an isometric exploded view of the lid with the central body provided with filter and powered fan.

DETAILED DESCRIPTION

[0018] With reference now to the various figures of the annexed drawings, the lid according to the present invention comprises the flat 10 preferably made of fire-resistant tempered glass and provided with a central opening 12. The flat 10 may be of two kinds and more particularly stepped (Figure 1) with concentric steps 14 to fit on pots and pans of any size or a plain flat 10A as shown in Figure 2, of different size according to the diameter of the pot or pan.

[0019] The knob 16 comprises two half shells 18 and 19 enclosing the frame 20 housing the filter (not shown). The upper half shell 18 is provided with holes 22 for discharging the filter of the steam, while the lower half shell 19 may be fixed to the opening 12 of the flat 10 or 10A or applied through an annular sucker 24 so that it is possible to detach, clean and/or wash the flat.

[0020] In Figures 5 and 6 one can see that the knob 16A may have its upper part 18A of a burn proof ergonomic shape so that the holding portion 19A is not in contact with the steam discharging holes 22. Finally in Figure 7 one can see that the central body 26 has bigger dimensions in order to accommodate a battery operated fan (not shown). In this case, the central body has two wings 28, each ending with a gripping-handle 30. The lid flat 10B may have an opening 32 for inserting a ladle or adding ingredients to the food in the pan.

[0021] From the foregoing description and the figures of the annexed drawings, it is clear that the universal lid according to the present invention fully attains the above mentioned objects, features and advantages, but it is to be noted that modifications, variations and/or additions to its different components, when falling within the innovative conception of the invention, should be considered covered by the characteristics set forth in the appended claims.

[0022] I claim as my invention: